REMARKS

Claims 1-29 are pending. Claims 1-29 stand rejected under 35 USC § 103. Applicant, respectfully traverses the rejections in light of the amendments and the following remarks.

Applicant requests interview

Applicant respectfully requests an interview if it would expedite disposition of the application. The undersigned attorney would welcome and encourage a telephone conference with Examiner at (512) 243-5936.

Amendments to the claims

Support for amendments to claims 1, 13, and 22 can be found in, e.g., paragraph 62 and original claims 9-10.

Claim rejections under 35 USC § 103(a)

The Office action rejected claims 1-29 under 35 USC § 103(a) as being unpatentable over Blaker et al., U.S. Patent Application No. 2003/0081600A1 (hereinafter referred to as "Blaker") in view of Grohoski et al., U.S. Patent Application No. 2004/0225885 A1 (hereinafter referred to as "Grohoski").

To establish a prima facie case of obviousness, the modification or combination must teach or suggest all of Applicants' claim limitations.[1]

The combination of Blaker and Grohoski fails to establish a prima facie case of obviousness for independent claims 1, 13, and 22 because the combination fails to teach or suggest all of Applicants' claim limitations. In particular, the combination fails to teach or suggest "each security coprocessor being configured to maintain separate queues for each of the independent instruction streams" with regards to claims 1-12 and "maintaining separate queues for each of the more than one independent instruction

[1] *In re Royka*, 490 F.2d 981, 985, 180 USPQ 580, 583 (CCPA 1974).

streams within at least one of the plurality of security coprocessors" with regards to claims 13-29.

Blaker describes a plurality of processors coupled in parallel between a DEMUX and a MUX.[2] The DEMUX evaluates related packets and assigns each of them to one of the processors in an order and the MUX reassembles the packets.[3] Blaker also describes the use of an input flow identifier to identify packets associated with particular instruction streams or threads.[4] In Blaker, each of the processors has its own output buffer to maintain multiple processed packets to avoid a bottleneck in the pipeline.[5] However, Blaker fails to teach or suggest a separate queue for each independent instruction stream maintained in a security coprocessor.

The Office action predicates the rejection of claims 1-29 on the substitution of the coprocessor arrangement of Grohoski for each of processor in Blaker to provide a prima facie case of obviousness for the plurality of security coprocessors in claims 1-29. And Grohoski also fails to teach or suggest a separate queue for each independent instruction stream maintained in a security coprocessor.

Grohoski describes a system and method to provide communication between the CPU and the crypto coprocessor 250 on the same die.[6] In general, Grohoski describes a CPU 205 that provides a control word in a control queue 210 related to a packet of an instruction stream to a crypto coprocessor 250 and the crypto coprocessor 250 executes cryptographic operations based upon the control word.[7] The control queue 210 is a circular FIFO.[8] Furthermore, Grohoski describes facilitation of multiple threads by implementation of multiple crypto units 1005, 1010, 1015, and 1020 in the crypto coprocessor 250 because the implementation of the multiple crypto units allows substantially simultaneous processing of packets.[9] However, Grohoski fails to teach or

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[2] Blaker FIG. 1.
[3] Blaker par. 37, lines 1-20, par. 42, lines 1-7, and par. 45, lines 5-7.
[4] See Blaker at pars. 39-40
[5] Blaker par. 59, lines 1-4.
[6] See Grohoski pars. 3 and 14.
[7] Grohoski pars. 61-62 and FIGs 2-3.
[8] Grohoski par. 65.
[9] Grohoski par. 124 and FIG 10.

suggest maintaining separate queues for independent instruction streams within the security coprocessor.

Thus, the combination fails to teach or suggest all of Applicants' claim limitations. Applicant respectfully traverses these rejections of claims dependent upon claims 1, 13, and 22, requests the rejections be withdrawn and requests that independent claims be allowed.

The claims dependent upon independent claims 1, 13, and 22, incorporate the limitations of the independent claims. Thus, Applicant requests the rejections be withdrawn and requests that the dependent claims be allowed.

CONCLUSION

Applicant respectfully traverses the claim rejections under 35 USC § 103. Accordingly, Applicant believes that this response constitutes a complete response to each of the issues raised in the Office action. In light of the accompanying remarks, Applicant believes that the pending claims are in condition for allowance. Thus, Applicant requests that the rejections be withdrawn, pending claims be allowed, and application advance toward issuance.

A request for an extension accompanies this response along with authorization for the corresponding fees. No other fee is believed due with this paper. However, if any fee is determined to be required, the Office is authorized to charge Deposit Account 500563 for any such required fee.

Respectfully submitted,

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Date

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